

In the claims:

Please cancel claims 42 and 43 without prejudice.

Please amend the claims as follows:

1-33. (canceled).

34. (currently amended). A nucleic acid sequence encoding a chimeric receptor, wherein the chimeric receptor contains two independent polypeptide chains, a first polypeptide chain and a second polypeptide chain, wherein the first polypeptide chain comprises in N- to C-terminus sequence:

- (1) an extracellular ligand association domain of an antibody heavy chain variable region;
- (2) a spacer domain comprising residues 95 to 159 of human CD8 in which cysteine (143) has been changed to alanine, and threonine (117, 118, and 119) have been changed to glycine, alanine and glycine respectively of any polypeptide comprising 20 to 100 amino acid residues;
- (3) a transmembrane domain comprising residues 375-395 of CD4 of any oligopeptide or polypeptide derived from all or part of a human CD4 transmembrane domain; and
- (4) an intracellular domain comprising residues 396-435 of CD4 , wherein the intracellular domain is a signaling domain comprised of any naturally occurring polypeptide signaling sequence that is all or part of the human CD4 intracellular signaling domain;

and wherein the second polypeptide chain comprises in N- to C-terminus sequence:

- ~~(5)~~ (4) an extracellular ligand association domain of an antibody light chain variable region;
- ~~(6)~~ ~~(5)~~ a spacer domain comprising residues 95 to 159 of human CD8 in which cysteine (143) has been changed to alanine, and threonine (117, 118, and 119) have been changed to glycine, alanine and glycine respectively of any polypeptide comprising 20 to 100 amino acid residues;
- ~~(7)~~ ~~(6)~~ a transmembrane domain comprising residues 375-395 of CD4 of any oligopeptide or polypeptide derived from all or part of a human CD4 transmembrane domain; and

(8) an intracellular domain comprising residues 31 to 142 of the human T cell receptor zeta chain , ~~wherein the intracellular domain is a signaling domain comprised of any naturally occurring polypeptide signaling sequence that is all or part of the human T cell receptor zeta chain;~~

wherein the extracellular ligand association domains of each chain are able to act cooperatively to form a ligand binding site. ~~spacer and/or transmembrane domains of the first and second polypeptide chains are selected to remain unassociated except in the presence of bound ligand.~~

35. (previously presented). The nucleic acid sequence according to Claim 34 in association with a carrier.

36. (previously presented). The nucleic acid sequence according to Claim 35 wherein the carrier is a viral vector, a liposomal vector, a cationic lipid or an antibody.

37. (previously presented). The nucleic acid sequence according to Claim 35 wherein the carrier is a targeted carrier.

38. (previously presented). The nucleic acid sequence according to Claim 34 wherein the nucleic acid sequence is on a plasmid.

39-43. (canceled).